

Characterizing Existing Hydrology, Water Quality, and Other Characteristics of a Small Pacific Coast Watershed in Preparation for Habitat Restoration

Alternatives

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The watershed of a small coastal drainage, No Name Slough, was characterized to provide information to develop restoration alternatives. No Name Slough is located in Skagit County, Washington. It drains an agricultural and low density rural area (2780 acres) into Padilla Bay which contains extensive eelgrass meadows. The characterization included compilation of historic water quality monitoring and acquisition of current water quality and water quantity measurements. Geographic Information Systems (GIS) geospatial data acquisition included stream hydrology, culverts, topography and soils. Watershed boundaries and subbasin boundaries were delineated, ground water depths determined and mapped from well log datasheets, National Wetlands Inventory data were mapped in combination with in-house aerial photo interpretation of wetlands. Piezometers and flow meters were installed and locations were mapped. Impervious surfaces were delineated from aerial photo interpretation and areas of impervious surface were calculated per subbasin. A series of historical aerial photography (1937, 1943, 1956, 1965, 1974, and 2002) was acquired, as well as late 1800's maps and charts of the surrounding areas. This watershed characterization is being used to identify areas of good and poor habitat and water quality/quantity in order to develop and evaluate restoration alternatives for this small coastal slough.